

34442
S/185/61/006/006/024/030
D299/D304

18.1110

AUTHORS: Yankevych, V.F., and Bezruchko, I.V.

TITLE: Local spectral analysis

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 6, 1961,
861 - 866

TEXT: The development of local spectral analysis for steel is of great importance for study of changes in concentration during diffuse saturation of metals, for the study of gaseous erosion, friction etc. The authors developed a method of local quantitative spectral analysis of carbon in steels (as well as of some other elements), for studying diffusion processes during the action of powder gases on the metal. In such a method of spectral analysis, great accuracy of electrode mounting is required. For this purpose, the authors designed a special support which provides for the required accuracy and also permits carrying out the analysis when the specimen is in motion. In earlier experiments it was found that the most convenient size of the discharge gap was 0,7 mm. The choice of

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Local spectral analysis

optimal exposure is also important in the spectral analysis of the carbon content in steel. It was found that with long exposures on the spectrograph KCA-1 (KSA-1) (which has large dispersion), the ratio of blackening of the carbon- to iron lines is half the corresponding value for the spectrograph KCP-28 (ISP-28) (with medium dispersion). Therefore, it can be assumed that in this case diffusion processes in the discharge gap have an important role. Another significant factor in determining the carbon content is the type of support electrode. Best results were obtained with a magnesium electrode; it was found that in this case the specimen surface is much more even than with electrodes of other material. The electrode diameter is also a factor to be taken into account; if the diameter exceeds 1.8 mm, the specimen surface becomes uneven, the surfaces were most even, for a diameter of 1.4 mm. The method of removal of the layers which were already treated by the discharge, is also very important in local spectral analysis. The experiments were conducted on steel specimens X12M (KhI2M), which have 2 structural components: Sorbite and carbide, with greatly divergent physico-mechanical properties. The specimens were treated differently, (abra-

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Local spectral analysis ...

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sion and polishing). Protuberances were observed on the polished surface; a metallographic investigation showed that these were carbides. Specimens of steel 20 and Y-10 (U-10) were analyzed; it was found that even if the powder gases are active for a short time only (0.002 sec.), a considerable saturation with carbon takes place in the surface layer to a depth of 15 μ . The above method was used for studying the diffusion processes during the erosion of piston rings of certain types of internal combustion engines. The atomic carbon which is formed, penetrates the surface layers of the piston rings, forming brittle iron carbide. There are 6 figures and 2 Soviet-bloc references.

ASSOCIATION: Instytut mekhaniky AS UkrRSR (Institute of Mechanics of the AS UkrRSR, Kyiv)

Card 3/3

X

S/048/62/026/007/012/030
B104/B138

AUTHORS: Yankevich, V. F., and Bezruchko, I. V.

TITLE: Investigation of processes occurring in the surface layer of
a metal during spectrum analysis

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya,
v. 26, no. 7, 1962, 884-887

TEXT: The entry of carbon from steels into the arc of a discharge was examined with a stereomicroscope, a profilograph, and a spectrograph. It was found to be dependant on the diameter and shape of the magnesium electrode, on the duration of discharge, etc. Investigation of the change in carbon concentration in the surface layer during h-f discharge shows that, particularly in local spectrum analysis, diffusion in the surface layer must be taken into account, and the layer formed during the first picture of the spectrum must be removed before taking a second picture. There are 3 figures.

Card 1/1

YANKEVICH, V.F.; BEZRUCHKO, I.V.

Mechanism of the admission of a substance from the electrode surface
during microscopal analysis. Zav.lab. 29 no.12:1447-1449 '63.

(MIRA 17:1)

1. Institut mekhaniki AN UkrSSR.

YAGSIV, M. I. P.; BEHRUCHAN, I. V.

Stand for localized spectral analysis. Zav. lab. 30 no.5:
628-629 '64. (MIRA 17.5)

I. Institut mekhaniki AN UzbSSR.

L 06369-67

EMP(W)/EMP(t)/ETL JUP(c) JD/DJ

ACC NR: AP6027489

(A)

SOURCE CODE: UR/0418/66/000/003/0063/0066

AUTHOR: Bezruchko, I. V. (Engineer); Golovinskaya, T. M. (Engineer); Gorb, M. L. (Engineer); Panchenko, N. P. (Engineer); Chernenko, V. S. (Engineer); Chernyak, N. I. (Engineer)

ORG: None

TITLE: Contact fatigue strength of ShKh15 bearing steel

SOURCE: Tekhnologiya i organizatsiya proizvodstva, no. 3, 1966, 63-66

TOPIC TAGS: fatigue test, fatigue strength, steel microstructure, x-ray analysis,

BEARING STEEL / SHKH15 BEARING STEEL

ABSTRACT: The authors describe a study carried out at the Institute of Mechanics AN UkrSSR in cooperation with the First State Bearing Plant on the contact fatigue strength of ShKh15 bearing steel. The basic criterion in evaluating polishing conditions is taken as the physical state of the layer structure and depth of structural variation. Mechanical methods for testing contact fatigue strength and for measuring microhardness were used together with metallophysical methods and microstructural and x-ray structural analysis. Steel specimens used for these tests were heat treated after finish machining. The following heat treatment procedures were used: quenching at 850°C in 40-50°C oil, cold processing with cooling to -30°C and tempering at 150-160°C. These conditions give specimens with a hardness of HRC 62-64. After heat treatment the specimens were polished under various conditions. The specimens were divided into three groups according to the amount of metal removed: 0.1 mm for the first group; 0.15 mm for the second and 0.25 mm for the third. Depth of structural

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UDC: 620.17:669.14

L 06369-67

ACC NR: AP6027489

variation after polishing for the various groups is the following: 10-30 μ for the first group, 150-170 μ for the second and 220-250 μ for the third. Microstructural analysis for the first group shows that structural variation is not significant. The microhardness of these specimens is 950-1000 kg/mm². X-ray analysis for this group of specimens shows that variations due to polishing and honing are localized in a layer 10-30 μ thick. Slight deformation and elongation of the crystal lattice of the α -phase is observed in this layer. Depth of variation for the second group of specimens is 150-170 μ . This is substantiated by microhardness measurement data and microstructural and x-ray analysis. Depth of variation for the third group reaches 250 μ , these variations being similar to those of the second group. The unetched surfaces of the specimens in the first and second groups examined under an electron microscope show scaly tearing and deep scratches caused by polishing. After etching, secondary solid solutions are observed on individual surfaces oriented in the direction of polishing. A graph is given showing the contact fatigue strength of all three groups. The results show that contact fatigue limit for the second and third groups is identical (150-160 kg/mm²), differing from the first group where maximum contact strength is 200 kg/mm². Pit depth for the first group under staining does not exceed 300 μ , reaching 600-700 μ for the second and third groups. All groups show large-scale micro-focal scaling after testing observed on the electron microscope. The authors recommend that polishing procedures be selected which have the minimum effect on the structural variation of the surface layer of ShKh15 steel. Orig. art. has: 4 figures.

SUB CODE: 11/ SUBM DATE: None

Card 2/2 *th*

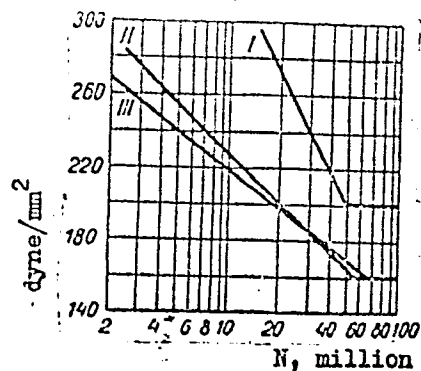
L 10326-67 EWP(k)/EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) JD
 ACC NR: AF6020918 SOURCE CODE: UR/0369/66/002/002/0204/0208
 AUTHORS: Bezruchko, I. V.; Golovinskaya, T. M.; Gorb, M. L.; Panchenko, N. P.;
 Chernenko, V. S.; Chernyak, N. I.
 ORG: Mechanics Institute of the AN UkrSSR, Kiev (Institut mekhaniki AN UkrSSR);
 First GPZ, Moscow (Pervyy GPZ)
 TITLE: Effects of the physical condition of the surface layer, formed during grinding,
 on the contact wear resistance of steel ShKh15
 SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 2, 1966, 204-208
 TOPIC TAGS: surface fatigue, surface property, metal friction, steel property,
 grinding wheel, electron microscope, steel, x-ray equipment/ ShKh15 steel, EB60SM2K
 grinding wheel, E46SM2K grinding wheel, LHM-8M microscope, UEM-100 electron microscope,
 UPS-50I x-ray equipment
 ABSTRACT: The effects of the structure and depth of structural gradients on the
 surface fatigue of ShKh15 steel were investigated. Thirty-five millimeter diameter x
 10-mm thick disc-shaped specimens were heat-treated and ground using wheel EB60SM2K
 and finish-ground with wheel E46SM2K. Three grinding regimes (0.005 mm/rev, 0.15 mm
 and 0.25 mm) were used to produce structural changes in layers of 10--20, 150--160,
 and 220--250 micron respectively. After lapping to an 11--12 class finish, surface
 fatigue tests were performed at 1750 rpm using methods described by M. A. Puzanov
 Card 1/2

L 10326-67

ACC NR: AP6020918

(Sb. Povysheniye iznosostoykosti detaley mashin, Izd. AN UkrSSR, 1956, No. 22).
Microstructural studies of the surface layers were performed using optical and electron microscopes (MIM-8M and UEM-100 respectively) and x-ray equipment (UPS-50I). A discussion of the structural changes for the different grinding regimes is included, and the experimental results are summarized in Fig. 1.

Fig. 1. Surface fatigue of group I, II, and III specimens (corresponding to structural changes in layers of 10--20, 150--160, and 220--250 micron respectively)



Orig. art. has: 5 figures.

SUB CODE: 11,13/ SUBM DATE: 17Jul65/ ORIG REF: 003

Cond 2/2 xR

BEZRUCHKO, T.F., inzh.

Methods for analyzing the profit growth potentials of enterprises.
Izv.Vys.ucheb.zav.; tekhnolog.prom. no.3:3-13 '60. (MIRA 13:8)

1. Kiyevskiy tekhnologicheskoy institut legkoy promyshlennosti.
Rekomendovana kafedroy ekonomiki i organizatsii proizvodstva.
(Shoe manufacture) (Industrial management)

BEZRUCHKO, E.F., starshiy nauchnyy sotrudnik

Indices of the profitability of industrial production.
Kozh.-obuv. prom. 6 no.9:4-6 3 '64. (MER: 17:12)

1. Nauchno-issledovatel'skiy ekonomicheskii institut Gosplana
UkrSSR.

20826

24.7500 (1136, 1143, 1160)

S/048/61/025/003/014/047
B104/B214

AUTHORS: Bezruchko, V. M. and Shatalov, A. A.

TITLE: Visualization of defects in the lattice of alkali halide crystals with the help of electrolytic coloring

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 3, 1961, 349-350

TEXT: This paper was read at the Ninth Conference on Luminescence (Crystal Phosphors) held in Kiyev from June 20 to June 25, 1960. In the introduction, it is shown that the effect of different kinds of lattice defects on the formation of color centers has been mostly not taken into consideration. It is shown that different kinds of lattice defects are revealed by electrolytic coloring. Since the energies of thermal activation of the ions and of the formation of vacancies at the defects are considerably smaller, the color centers develop there much faster. It is thus possible to observe the defects made visible in a transparent solid body. Defects of various structures were discovered in this manner in the laboratory of the authors. In this connection, it was found that on a

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Visualization of defects...

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B104/B214

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certain heat treatment of alkali halide crystals certain deformations appear, which are in the form of domains and are very similar to those of ferroelectrics. If the crystal is heated to above 500°C and then suddenly cooled to room temperature, the specimen is divided somehow into thin layers parallel to the (110) and $(\bar{1}\bar{1}0)$ planes. The thickness of these layers lies between 0.2 and 0.4 mm. On examination with a polarization microscope in the direction $\{100\}$, these were detected in the form of dark and bright bands causing a periodic change in the refraction of light. By coloring, these layers acquire a red or blue color in ordinary light, which shows the existence of color centers of different sizes. It can also be concluded from this fact that in the neighboring twin domains, the lattice is in different states. The coexistence of two lattice modifications having also different coalescence rates of the F-centers leads to the formation of red (odd) and blue (even) centers. The crystals so treated show also a birefringence and a dichroism. Special experiments on NaCl showed that the rate of coagulation depends largely on the static deformations. At the same time, this supports the assumption that the above-mentioned development of layers is a deformation of the crystal domains. There is 1 figure.

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Visualization of defects...

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S/048/61/025/003/014/047
B104/B214

ASSOCIATION: Kiyevskiy gos. universitet im. T. G. Shevchenko
(Kiyev State University imeni T. G. Shevchenko)

X

Card 3/3

L 16872-63

EWI(1)/EWI(m)/BDS/EEC(b)-2
ACCESSION NR: AR3006302

AFPTC/ASD P1-4 RM
S/0058/63/000/007/D047/D047

SOURCE: RZh. Fizika, Abs. 7D349

AUTHOR: Bezruchko, V. M.; Shatalov, A. A.

62

TITLE: Polarization properties of products of photochemical and thermal adhesion of F-centers

CITED SOURCE: Sb. Fiz. shchelochnogaloidn. kristallov. Riga, 1962, 232-237

TOPIC TAGS: F-centers, alkali-halide crystal, photochemical adhesion, thermal adhesion

TRANSLATION: It is shown that the anisotropic distribution of F_2 centers in alkali-halide crystals can be obtained by applying different actions on the crystal: photochemical destruction, electric field, definite treatment leading to the breaking up of the crystal

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L 16872-63

ACCESSION NR: AR3006302

into individual twin regions which are differently polarized. The mechanism of the re-orientation of F_2 centers during the process of action of polarized light is discussed. It is also found that colloidal centers can acquire an anisotropic form and orientation in the case of photochemical destruction and under the action of pressure. T. Eksina.

DATA ACQ: 15Aug63

SUB CODE: PH

ENCL: 00

Card 2/2

BEZRUCHENKO, V.N.; VARCHENKO, V.K.

Switching of transformer winding stages using a resistance. Elek.
i tepl. tiaga 7 no.6:12-13 Je '63. (MIRA 16:9)

1. Glavnyy konstruktor Dnepropetrovskogo elektrovostroitel'nogo
zavoda (for Bezruchenko). 2. Nachal'nik issledovatel'skogo otdela
spetsial'nogo konstruktorskogo byuro Dnepropetrovskogo
elektrovostroitel'nogo zavoda (for Varchenko).
(Electric locomotives)

BEZRUCHKO, Viktor Sergeyevich; PLATOV, Vladimir Ivanovich; IVANOV, Konstantin Yevgen'yevich; SOROKIN, M.N., inzhener, redaktor; KHITROV, P.A., tekhnicheskiy redaktor.

[Mechanization of track work of foreign railroads] Mekhanizatsiia putevykh rabot na zarubeshnykh sheleznykh dorogakh. Moskva, Gos. transp.shel-dor.isd-vo, 1957. 138 p. (MIRA 10:11)
(Railroads--Track)

BEZRUCHKO, V.S., inzhener.

What rail fastenings should be like. Put.i put.khoz. no.4:15-17
Ap '57. (MLRA 10:5)

(Railroads--Rails--Fastenings)

BEZRUCHKO, V.S., inzhener.

Spring spikes on foreign railroads. Put' i put.khoz. no.9:47-48
S '57. (MIRA 10:10)

(United States--Railroads--Track)

BEZRUCHKO, V. S. inzh.

Organizing topographical observations of the subgrade. Put' i put.
khoz. no. 8:32-33 Ag '58. (MIRA 11:8)
(Railroads--Earthwork)

BEZRUCHKO, V.S.

AL'BREKHT, Vladimir Georgiyevich, prof.; LIDERS, Georgiy Vladimirovich, dotsent; NIKIFOROV, Pavel Aleksandrovich, prof. [deceased]; CHLENOV, Mikhail Timofeyevich, kand.tekhn.nauk; CHERNYSHEV, Mikhail Andreyevich, kand.tekhn.nauk; FRISHMAN, M.A., prof., retsenzent; ANDREYCHENKO, A.V., inzh., retsenzent; BABKIN, A.R., inzh., retsenzent; BEZRUCHKO, V.S., inzh., retsenzent; ZHEREBIN, M.I., inzh., retsenzent; MEL'NIK, D.M., inzh., retsenzent; MURAV'YEV, I.V., inzh., retsenzent; NOVITSKIY, G.I., inzh., retsenzent; PASHININ, S.A., inzh., retsenzent; POTOTSKIY, G.I., inzh., retsenzent, red.; RAK, S.M., inzh., retsenzent; TYUTYUNNIK, F.R., inzh., retsenzent; ULYUYEV, D.I., inzh., retsenzent; SHEPELEV, V.N., inzh., retsenzent; BOBROVA, Ye.N., tekhn.red.

[Track work] Putevoe khoziaistvo. Pod red. M.A.Chernysheva. Moskva, Gos.transp.zhel-dor.izd-vo, 1959. 435 p. (MIRA 12:12)

1. Kafedra "Put' i putevoye khozyaystvo" Dnepropetrovskogo instituta inzhenerov zheleznodorozhnogo transporta (for Frishman). (Railroads--Track)

BEZRUCHKO, Viktor Sergeyevich; SERGEYEVA, A.I., inzh., red.; KHITROV,
P.A., tekhn.red.

[Fundamentals of geodesy] Osnovy geodesii. Moskva, Vses.
izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniya, 1960.
178 p. (MIRA 13:10)
(Railroads--Surveying)

BEZRUCHKO, V.S., inzh., red.; BOBROVA, Ye.N., tekhn. red.

[Control of landslides, avalanches and wash-outs on railroads in the Caucasus; papers of a conference held in Rostov from February 1st to February 4th, 1960] Bor'ba s opolzniami, obvalami i razmyvami na zheleznykh dorogakh Kavkaza; trudy soveshchaniia, provedennogo v g.Rostove s 1 po 4 fevralia 1960. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1960. 166 p.
(MIRA 14:8)

1. Russia(1923- U.S.S.R.)Komitet po zemlyanomu polotnu.
(Caucasus--Railroads--Safety measures) (Railroad engineering)

BEZRUCHKO, V.S., inzh.

The railroads of France. Biul.tekh.-ekon.inform.Nauch.tekh.
sov.Min.putei soob. no.2:91-94 '60. (MIRA 15:5)
(France-Railroads)

BEZRUCHKO, V.S., inzh.; GOROZA, Z.I., inzh.; CHERNOBROVKIN, N.A.,
inzh.; SHARBATOV, I.T., inzh., retsenzent; ZHEREBIN,
M.I., inzh., retsenzent [deceased]; POTOTSKIY, G.I.,
inzh., red.; USENKO, L.A., tekhn. red.

[Handbook for the track supervisor] Spravochnik dorozhnogo
mastera. Moskva, Transzheldorizdat, 1963. 477 p.
(MIRA 16:7)

(Railroads--Track)

FRISHMAN, M.A., prof., doktor tekhn. nauk; BEZRUCHKO, V.I., inzh.

Accelerate the solving of the problem of rail fastenings.
Zhel. dor. transp. 46 no.4:57-59 Ap '64. (MIRA 17:6)

ACC NR: AP6029017

SOURCE CODE: UR/0413/66/000/014/0021/0021

INVENTOR: Terent'yev, A. P.; Gracheva, R. A.; Bezruchko, V. T.

ORG: none

TITLE: Preparation of α -phenylethyl carbamates. Class 12, No. 183734 [announced by Chemical Department, Moscow State University im. M. V. Lomonosov (Khimicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta)]

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 21

TOPIC TAGS: phenylethyl carbamate preparation, phenylethyl isocyanate, phenyl compound, carbamic acid

ABSTRACT: In the proposed method, α -phenylethylcarbamates are obtained by the treatment of α -phenylethyl isocyanate with an alcohol at 20—80°C with subsequent removal of the alcohol by distillation in vacuo and isolation of the final product by some known method, e.g., recrystallization or distillation. [WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 23Sep65/

Card 1/1

UDC: 547.495.1.07

ACC NR: AP6029017

SOURCE CODE: UR/0413/66/000/014/0021/0021

INVENTOR: Terent'yev, A. P.; Gracheva, R. A.; Bezruchko, V. T.

ORG: none

TITLE: Preparation of α -phenylethyl carbamates. Class 12, No. 183734 [announced by Chemical Department, Moscow State University im. M. V. Lomonosov (Khimicheskii fakul'tet Moskovskogo gosudarstvennogo universiteta)]

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 21

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ABSTRACT: In the proposed method, α -phenylethylcarbamates are obtained by the treatment of α -phenylethyl isocyanate with an alcohol at 20—80°C with subsequent removal of the alcohol by distillation in vacuo and isolation of the final product by some known method, e.g., recrystallization or distillation. [WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 23Sep65/

Card 1/1

UDC: 547.495.1.07

BEZRUCKA, S.

Basic data concerning blasting agents.

P. 270, (Stavivo) Vol. 35, no. 7, July, 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EMAI) Vol. 6, No. 11 November 1957

BEZHUK, B. M.

1357

Teoreticheskiye osnovy ukrepleniya gruntov tsementami. M, 1954. 36 s. 21 sm. (Mosk. ordena Lenina gos. un-t im. M. V. Lomonosova. Geol. Fakl) 100 ekz. B. ts. (54-53759)

SO: Knizhaya Letopis', Vol. 1, 1955

BEZRUK, I.A.; KAMENETSKIY, F.M.

Interpretation of data on multifrequency induction prospecting
in regions of blanket sediments of low resistance. Izv. vys.
ucheb. zav.; geol. i razved. 3 no. 10:93-101 0 '60. (MIRA 13:12)

1. Moskovskiy geologorazvedochnyy institut imeni S. Ordzhonikidze.
(Electric prospecting)

L 12443-65

EWI(1)/EEC(t)/FCC

Po-4/P1-4

GW

ACCESSION NR: AT4047657

S/2552/64/000/039/0075/0090

AUTHOR: Bezruk, I. A.; Berdichevskiy, M. N.; Klyuchkin, V. N.; Kulikov, A. V. 8

TITLE: Application of the theory of random functions to analysis of the magnetotelluric field

SOURCE: Moscow. Vsesoyuznyy nauchno-issledovatel'skiy Institut geofizicheskikh metodov razvedki. Prikladnaya geofizika, no. 39, 1964, 75-90

TOPIC TAGS: geophysical prospecting, magnetotelluric field, terrestrial electromagnetic field, electrical prospecting

ABSTRACT: Experiments have shown that considerable difficulties are involved in the use of the telluric sounding method. These are due to the inapplicability of the classical methods of spectral expansion to the real magnetotelluric process and field distortions due to the horizontal nonhomogeneity of the medium. These difficulties can be eliminated in part by analysis of quasi-sinusoidal parts of the magnetotelluric process. Whereas, in the simplified modification of magnetotelluric sounding proposed by M. Berdichevskiy (magnetotelluric profiling), such analysis on the whole is satisfactory with respect to the requirements of field work, and magnetotelluric profiling can therefore be used in the field. In magnetotelluric sounding it causes serious limitations which lower the effectiveness of

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ACCESSION NR: AT4047657

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observations and restrict its field applicability. Elimination of these limitations requires a universal solution of the problem of the spectral expansion of the magnetotelluric process. This paper presents the principles of such a solution on the basis of the theory of random functions and cybernetics. The authors present the classical formulation of the problem, discuss magnetotelluric variations as a random process, illustrate the statistical determination of the parameters of the magnetotelluric field at the surface of a horizontally homogeneous medium, and give a statistical determination of the parameters of the magnetotelluric field at the surface of a horizontally nonhomogeneous medium. It is shown that the statistical parameters of the magnetotelluric field can be determined with complete stability and can be used for a study of the geoelectric cross section. Orig. art. has: 55 formulas and 2 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: ES

NO REF SOV: 008

OTHER: 001

Card 2/2

SECRET (U) (M)
ACC NR: AF0029899

(A, N)

SOURCE CODE: UR/0413/66/003/015/0062/0062

INVENTORS: Alekseyev, A. M.; Bezruk, I. A.; Bulanov, M. A.; Shchukin, S. N.; Klyuchkin, V. N.; Kulikov, A. V.; Melikadze, S. Ye.; Chinareva, O. M.; Yemel'yanov, A. M.; Mangirova, G. S.; Rozin, G. I. M.; Boltalin, A. P.; Zlatkovich, L. A.; Iova, G. M.; Sokolova, E. D.

ORG: none

TITLE: Geoelectric prospecting device. Class 21, No. 184361 [announced by All-Union Scientific Research Institute of Geophysical Prospecting Methods (Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki)]

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 62

TOPIC TAGS: prospecting, geologic instrument

ABSTRACT: This Author Certificate presents a geoelectric prospecting device containing a dc generator, a master oscillator, a thyatron bridge commutator, a reference phase synchropulse shaper unit, a radio station, and a measuring laboratory. The laboratory contains an electromagnetic field receiver, a calibration unit, a selective amplifier, a radio station, a synchropulse shaper unit, an electronic oscillograph, a recorder, a time setting unit, and a detector voltmeter. For generalized utilization of the device in the VP, MPP, and INFAP methods, to increase the accuracy of measuring the phase angles in the infrasonic frequency range, and to increase the noise

Card 1/2

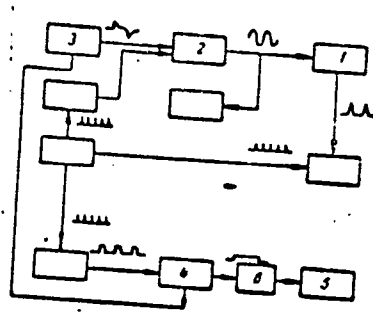
UDC: 550.837

L 10306-57

ACC NR: AP6029899

protection when measuring pulsed signals, a phase marker in the form of a diode regenerative comparator is placed in the measuring laboratory. The comparator is connected to the output of the selective amplifier. An input signal divider connected to the input of the selective amplifier is used in the calibration unit. A dc amplifier operating in the electrometric mode is connected between the register and recorder (see Fig. 1).

Fig. 1. 1 - phase marker; 2 - selective amplifier; 3 - calibration unit; 4 - register; 5 - recorder; 6 - dc amplifier



Orig. art. has: 1 diagram.

SUB CODE: 09 08/ SUBM DATE: 30Jun64

Card 2/2

~~BEZRUK, I. T.~~

Efficient work methods⁴ a rolling mill operator. Metallurg no.11:30-
31 N '56. (MLRA 10:1)

1. Starshiy operator kleti kvarto stana 2250 zavoda imeni Voro-
shilova.
(Rolling (Metalwork))

ACC NR: AP7004189

(A, N)

SOURCE CODE: UR/0369/66/002/006/0698/0701

AUTHOR: Gorokhovskiy, G. A.; Bezruk, L. I.; Severin, P. A.; Dudnik, M. I.

ORG: Kiev Institute of Engineers of Civil Aviation (Kiyevskiy institut inzhenerov grazhdanskoy aviatsii)

TITLE: Effect of technological orientation of structure on the wear of polytetrafluoroethylene

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 6, 1966, 698-701

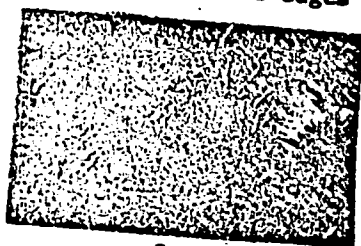
TOPIC TAGS: polymer structure, polytetrafluoroethylene, wear resistance, chain polymer

ABSTRACT: The wear resistance of polytetrafluoroethylene (PTFE) is investigated as a function of the pattern of alignment of supramolecular formations, which pattern is determined by the technique of processing of the polymer into manufactured articles. The product of the polymerization of PTFE represents a white powder with a fibrous structure which is processed into manufactured articles by pressing and sintering at 360-370°C. The specimens tested were cylinders 30 mm in diameter and 40 mm in height, pressed by means of uniaxial compaction. Such a force field leads to an orientation of supramolecular structures which will persist during subsequent sintering owing to the extremely high viscosity of the PTFE melt. Two series of specimens were tested

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ACC NR: AP7004189

for wear. In the first series (Ic) the planes of working surfaces were at right angles to the pressing axis and in the second series (IIc), parallel (Fig. 1). It was found that specimens Ic (perpendicular) are represented by laminar formations, whereas specimens IIc (parallel) exhibit edges of these laminar formations. Further, specimens IIc



a



b

Fig. 1. Structure of PTFE films sliced at right angles (a) and parallel (b) to the pressing axis of the cylindrical sintered specimen (magnified 8000 times)

ACC NR: AP7004189

wear out more intensely, which is apparently associated with the greater number of structural defects at such an orientation of the supramolecular formations. Similarly, a rise in temperature acts more destructively on specimens with a structure of the IIc type. This difference in wear resistance can be offset by adding colloidal graphite as a filler during sintering or by partially pulverizing the sintered polymer so as to partially destroy the molecular chains and thus to equalize the structure in the transverse and longitudinal directions. Orig. art. has: 5 fig.

SUB CODE: 11/ SUBM DATE: 18Jun66 / ORIG REF: 015/ OTH REF: 002

Card 3/3

L 21824-66 EWP(j)/EWT(m) RM/GS

ACC NR: AT6006250

SOURCE CODE: UR/0000/65/000/000/0096/0099

AUTHOR: Yegorov, Yu. P.; Bezruk, L. I.; Panchenko, L. I.

ORG: Institute of the Chemistry of High Molecular Compounds AN UkrSSR (Institut khimi vysokomolekulyarnykh soyedineyy AN UkrSSR) 32 B71

TITLE: Effect of mineral additives^p on polycaprolactam⁷ crystallinity

SOURCE: AN UkrSSR. Modifikatsiya svoystv polimerov i polimernykh materialov (Modification of the properties of polymers and polymeric materials). Kiev, Naukova dumka, 1965, 96-99

TOPIC TAGS: polymer, crystalline polymer, polymer structure, solid mechanical property, synthetic material

ABSTRACT: The effect of SiO₂-marshallite, Al₂O₃-corundum, TiO₂-rutile, and Fe₂O₃ on the physico-mechanical and structural properties of polycaprolactam was investigated. Crystallinity was examined using 3 mm² samples and a UEMV-10 electron microscope with 8,000-10,000 magnification. Tensile strength was measured on standard samples of 2 x 4 x 55 mm and the transverse strength was measured on 4 x 6 x 55 mm.

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L 21824-66

ACC NR: AT6006250

bars using the FM-500-machine (manufactured by the Rauenstein Company). Mineral additives with an average particle diameter of 1-50 microns were added either during the polymerization process or into the finished polycaprolactam. It was found that all these mineral additives promote crystallinity in polycaprolactam, and improve the mechanical properties of the products. The effect of mineral additives on physico-mechanical properties of polycaprolactam is shown in table 1. Orig. art. has: 18 figures, 2 tables.

TABLE 1

Mechanical Property	Pure polycaprolactam	Powdered silica gel		Fe ₂ O ₃		TiO ₂	Al ₂ O ₃
		5%	10%	10%	20%	50%	50%
Hardness HB	9.3	11.0	12.4	10.8	11.2	12.8	14.0
Transverse strength, kg/cm ²	875	1210	840	1402	1380	1260	1420
Relative elongation during stretching, %	220	48	24	110	100	59	40

SUB CODE: 11/

SUBM DATE: 06Oct65/

ORIG REF: 008/

OTH REF: 007

Card 2/2 nst

BEZMAK, P.I.

Chemical Abst.
Vol. 48
Apr. 10, 1954
Biological Chemistry

Pharmacological study of amorphous glycosides from leaves of *Erysimum cheiranthoides*. P. I. Bezma, *Chem. Research Chem.-Pharm. Inst., Kharkov, U.S.S.R.*, *Toksikal.* 10, No. 5, 43-6 (1954). The bio. activity of *E. cheiranthoides* glycosides is 6500 cat units or 54000 mg units; intravenous injection gives the greatest effect. The lateral absorption is nearly complete in 3 hrs. and elimination is rapid (0.016 mg./kg./hr.) when introduced into the duodenum of cats. There is very little cumulative effect. Julian F. Padua.

USMANOV, . I.

"A pharmacological of a Glycoside Preparation Obtained from the Leaves of *Erysimum cheiranthoides* -- Porezima." Cand Med Sci, Khar'kov Medical Inst, Min Higher Education USSR, Khar'kov, 1954. (KL, No 7, Feb 55)

SO: Sum. No. 631, 26 Aug 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

GLUZMAN, M.Kh.; DASHEVSKAYA, B.I.; ONITSEV, P.I.; BEZRUK, P.I.

Water soluble bases for suppositories and ointments. Med.prom.
10 no.4:14-15 O-D '56. (MLRA 10:2)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut.
(SUPPOSITORIES) (OINTMENTS)

In an article entitled "Ergotal--a New Ergot Preparation," N. G. Sinilova and P. I. Bezruk, Kharkov Scientific-Research Chemico-Pharmaceutical Institute, describe the new ergot preparation developed in 1954 at the Kharkov Scientific Research Chemicopharmaceutocal Institute. Ergotal is a white with a brownish tint powder; has a faint characteristic odor; slightly soluble in water, less soluble in organic solvents, and readily soluble in acidified water. It contains not less than 96 percent of ergot alkaloids in the form of water soluble and nonwater soluble phosphates. An identity test revealed that Ergotal contains mainly the ergotoxine group of alkaloids: ergocristine, ergocryptine, and ergocornine. Only traces of ergotamine alkaloids are found. Ergotal is considerably less toxic than either ergotine or the fluid extract of ergot. The smallest lethal dose of ergotal is 2 milligrams per 20 grams of body weight of mice, while the smallest lethal dose of ergotine is 0.5 milliliters and of the fluid extract of ergot -- one milliliter per 20 grams of body weight of mice. It can be successfully applied in all cases in which other ergot preparations are indicated. It is contraindicated during pregnancy, birth, or in uterine fibromyoma. (Meditsinskaya Promyshlennost' SSSR, Vol 11, No 3, Mar 57, pp 58-60) (U)

USSR / Pharmacology, Toxicology. Cardiovascular Drugs. V

Abs Jour: Ref Zhur-Biol., No 9, 1958, 42374.

Author : Bezruk, P. I.; Rozovskaya, Ye. S.

Inst : Not Given.

Title : The Effect of the Degree of Ascorbic Acid Saturation of the Organism Upon the Sensitivity of Digitalis (Cordigit) Glucosides in Experimental Diphtheria.

Orig Pub: Farmakol. i toksikologia, 1957, 20, No 4, 61-66.

Abstract: The correlation between the survival time of guinea pigs and the rate of cordigit (I) injection was studied by the method of Gubner and Neyer. Animals taken on the 3-7th day after infection with diphtheria, survived, at I injection rate not higher than 0.01 mg/kg in 1 hour; while controls - at a rate of 0.1 mg/kg per hour. The content of ascorbic

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USSR / Pharmacology, Toxicology. Cardiovascular Drugs. V

Abs Jour: Ref Zhur-Biol., No 9, 1958, 42374.

Abstract: acid in the liver, heart and skeletal muscles of the experimental animals was found to be lower than in healthy animals. I, in concentration of 1:15-1:18 million had a toxic effect upon the isolated heart of the diphtheritic animal, while in the control group, it produced increase of the amplitude and slowing of the rhythm. A therapeutic effect was noted at a concentration of 1:60 million. One part of the animals received, parenterally, for a period of 5-6 days, 20 mg/100 g doses of ascorbic acid with the first day of infection. These guinea pigs survived injection of I at a rate of 0.05 mg/kg per 1 hour, while the control animals, having also received ascorbic acid, survived injections of 0.17 mg/kg per 1 hour. I showed therapeutic action on the isolated heart

Card 2/3

USSR / Pharmacology, Toxicology. Cardiovascular Drugs. V
, Abs Jour: Ref Zhur-Biol., No 9, 1958, 42374.

Abstract: of the diphtheritic animals, only in a concentration 1:100 million. The injection of ascorbic acid in guinea pigs, with experimental diphtheria, as well as in controls, renders them more sensitive to I. -- L. N. Lavrent'yev

Card 3/3

19

KOLESNIKOV, D.G., MAKSYUTINA, N.P., BEZRUK, P.I.

Spasmolytic substances from parsley seeds. Apt.delo 7 no.4:27-30
Jl-Ag'58 (MIRA 11:8)

(ANTISPASMODICS)
(PARSLEY)

TROPP, M.Ya., SINILOVA, N.G., ANGARSKAYA, M.A., BEZRUK, P.I.,

Russian ergometrine maleate. Med.prom 12 no.8:43-46 Ag '58 (MIRA 11:9)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut.
(ERGONOVINE)

USSR/Pharmacology - Toxicology - Tranquilizers.

V

Abs Jour : Ref Zhur Biol., No 4, 1959, 18565

Author : Bezruk, P.I.

Inst : -

Title : The Influence of Corezim on Cardio-Vascular System.

Orig Pub : Farmakol. i toksikologiya, 1958, 21, No 4, 38-42

Abstract : In Experiments on dogs, corezim (I; 0.01-0.05 mg/kg) increases the blood pressure insignificantly, induces a slowing down of rhythm, increase of cardiac contraction amplitude, increase of systolic and minute volume. With an increase of the dose of I a sharp increase of blood pressure, acceleration of rhythm, arrhythmia and decrease of amplitude are observed. Under the influence of small doses of I on ECG of cat, a slowing down of the rhythm and a decrease of the systolic index was noted. In introduction of toxic doses of I, the positive T- wave passes into the negative, the S-T interval is displaced,

Card 1/2

USSR/Pharmacology - Toxicology - Tranquilizers.

V

Abs Jour : Ref Zhur Biol., No 4, 1959, 18565

the cardiac rhythm accelerates and the systolic index becomes larger. I in concentrations of 1:500,000 induces vascular constricting action on peripheral vessels and vessels of internal organs. -- From the author's resume.

Card 2/2

- 21 -

BEZRUK, P.I.

Pharmacology of pastinacin. Farm. i toks 21 no.6:41-43 N-D '58.

(MIRA 12:1)

1. Laboratoriya farmakologii Khar'kovskogo nauchno-issledovatel'skogo
khimiko-farmatsevticheskogo instituta.

(MUSCLE RELAXANTS,

same)

(VASOMOTOR DRUGS,

same)

TROPP, M.Ya.; SINILOVA, N.G.; BEZRUK, P.I.; BOZHKO, N.G.; BOYKO, V.Ya.

Stability of ergometrine maleate in tablets and ampoules. Apt.
delo 9 no. 5:9-13 S-0 '60. (MIRA 13:10)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevtiche-
skiy institut.

(ERGONOVINE)

ANGARSKAYA, M.A. [Anhars'ka, M.A.]; BEZRUK, P.I.; SOKOLOVA, V.Ye.;
KHADZHAY, Ya.I.

Pharmacological study of pentaerythritoltetranitrate (erynite).
Farmatsev. zhur. 16 no. 2:63-67 '61. (MIRA 14:4)

1. Laboratoriya farmakologii Kharkivs'kogo naukovo-doslidnogo
khimiko-farmatsevtichnogo institutu.
(NITRATES)

BEZRUK, P.I.; SOKOLOVA, V.Ye.

Pharmacology of dihydroergotoxin. Farm.i toks. 24 no.1:62-66
Ja-F '61. (MIRA 14:5)

1. Laboratoriya farmakologii (zav. M.A.Angarskaya) Khar'kovskogo
nauchno-issledvatel'skogo khimiko-farmatsevticheskogo instituta.
(ERGOT) (CARDIOVASCULAR SYSTEM)

ANGARSKAYA, M.A.; SOKOLOVA, V.Ye.; BEZRUK, P.I.

Pharmacology of manitrit. Farm. i toks. 27 no.3:318-323 My-Je
'64. (MIRA 18:4)

1. Laboratoriya eksperimental'noy farmakologii Khar'kovskogo
nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta.

ANGARSKAYA, M.A. [Anhars'ka, M.A.]; BEZRUK, P.I. [Bezruk, P.H.]; TKACHENKO, D.A.

Pharmacological properties of the cardiac glycoside bovoside A.
Farmatsev.zhur. 20 no.1:77-79 '65.

(MIRA 18:10)

1. Laboratoriya eksperimental'noy farmakologii Khar'kovskogo
nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta.

BEZRUK, Stepan Sidorovich, Geroy Sotsialisticheskogo Truda, brigadir plotnikov; BELOV, M.P., red.; KAYDALOVA, M.D., tekhn. red.

[The pride of a builder] Gordost' stroitel'ia. Khabarovsk, Khabarovskoe knizhnoe izd-vo, 1959. 18 p. (MIRA 14:9)
(Carpentry)

BEZHUK, V.

IVANOV, I.; GUMENSKIY, B.; ORNATSKIY, N.; BEZHUK, V.; PUZAKOV, N.;
TULAYEV, A.

Veniamin Vasil'evich Okhotin; obituary. Avt.transp. 32 no.6:3
of cover Je '54. (MLRA 7:9)

(Okhotin, Veniamin Vasil'evich, 1888 ?- 1954)

1ST AND 2ND ORDERS										PROCESSES AND PROPERTIES INDEX										3RD AND 4TH ORDERS									
Granulometric (mechanical) composition as an index of the physicochemical properties of soils and subsoils. - V. Bazarov. <i>Podology</i> (U. S. S. R.) 20, 212-18 (1935). - Quarts sand was ground in a colloid mill, the fractions were separated, and their properties with respect to swelling, hygroscopic moisture, max. hygroscopicity and plasticity were determined. It is shown that the fractions less than 0.001 mm. attain colloidal properties. The various quartz fractions were added to a moraine loam (horizon B₁), podzol loam (horizon B₂), chernosem (horizon A), and solonchets (horizon B) in quantities sufficient to make them all of the same mech. compn. On the mixts. the detns. made on the quartz fractions and resistance to compression and rate of wetting were also made. It was found that beside the mech. compn. the difference in the cation satn. (Na for solonchets, Ca for chernosem and H for the podzol) has a marked effect on the properties examd. and in road making these should be considered. J. S. Joffe										15																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION										1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									

[illegible]

BEZRUK, V. M.

"Capillary Rise of Water in Dense Ground Soils: Symposium of Articles on Regulation of Aqueous Systems of Road Foundation," Road and Highway Press, Moscow: 1946 (164-179). (Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

1. VIKTOROV, A.M., VYKOVSKIY, N.I., LEZRUK, V.M.
2. USSR (600)
4. Geology and Geography
7. Geology and Soil Science, A.M. Viktorov, N.I. Vykovskiy and V.M. Lezruk.
(Moscow, Highway Press, 1947). Reviewed by A.V. Yefremova, Sov. Kholm, No. 1, 1948.

9. [REDACTED] Report U-3081, 16 Jan. 1953, Unclassified.

BEZRUK, V.M.

24904. Bezruk, V. M. Oshovnyye Printsiny Stabilizatsii Gruntov. (Stroitel'stvo). Trudy Yubileynoy Sessii, Pessii, Posvyashch. Stoletiyu So Dnya Rozhdeniya Dokuchayeva, M.-L., 1949, S. 669-74.

So: Letonis' No. 33, 1949

1. BEZRUK, V. M. and KOSTRIKO, M. T.
2. USSR (600)
4. Geology and Geography
7. Geology and Pedology. V. M. Bezruk and M. T. Kostriko.
(Moscow, Highway Press, 1951). Reviewed by B. H. Gumenskiy.
Sov. Kniga, No. 1, 1952.

9. [REDACTED] Report U-3081, 16 Jan. 1953, Unclassified.

BEZRUK, V.M., laureat Stalinskoy premii, kandidat geologo-mineralogicheskikh nauk.

[Road surfacing and paving with stabilized soils] Dorozhnye osnovaniia i pokrytiia iz obrabotannykh gruntov. Moskva, Izd-vo Ministerstva avtomobil'nogo transporta i shosseinykh dorog SSSR, 1953. 38 p. (MLRA 7:8)

(Road construction)

BENZAK, V. M.

Stroitel'stvo Dorog Na Zasolennykh Gruntakh I Lodvizhnykh Leskakh
(Building roads on Saline soils and Shifting Sands, by) V. M. BENZAK, YU. L.
MOTYLEV (et al) Moskva, Avtotransizdat, 1953.

202 p. Illus., graphs, Tables.

"Literatura": p. 198-200.

At head of title: Moscow. Vsesoyuznyy Dorozhnyy Nauchno-Issledovatel'skiy Institut.

S. O. N/5

661.2

.B5

BEZRUK, V. M. --

"Theoretical Principles Governing the Solidification of Soils by Means of Cements." Dr Geol-Min Sci, Moscow Order of Lenin State U imeni Lomonosov, Geological Faculty, Moscow, 1954. (KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

Name: BEZRUK, Vasiliy Makarovich

Dissertation: Theoretical bases of the cement-reinforcement of soil

Degree: Doc Geol-Min Sci

Affiliation: All-Union Road Sci Res Inst

Defense Date, Place: 28 Feb 55, Council of Moscow Order of Lenin and Order of Labor Red Banner State U imeni Lomonosov

Certification Date: 7 Jul 56

Source: BMVO 5/57

BEZRUK, Vasilii Makarovich; KOSTRIKO, Mikhail Tikhonovich; RODIN, A.I.
redaktor; KOGAN, F.L., tekhnicheskii redaktor.

[Geology and soil science] Geologiya i grunotovedenie. Moskva,
Nauchno-tekhn.izd-vo avtotransportnoi lit-ry, 1955. 326 p.
(Geology) (Soils(Engineering)) (MLRA 8:11)

BEZRUK, V.M., doktor geologo-mineralogicheskikh nauk.

On the classification of clayey soils. Avt.dor. 18 no.8:9-10
D '55.

(MLRA 9:5)

(Soils--Classification)

BEZRUK, Vasilii Makarovich, doktor geologo-mineralogicheskikh nauk; IVANOV,
S.S., redaktor; MAL'KOVA, N.V., tekhnicheskii redaktor

[Theoretical principles of soil stabilization by means of cement]
Teoreticheskie osnovy ukrepleniia gruntov tsementami. Moskva.
Nauchno-tekhn. izd-vo avtotransp. lit-ry. 1956. 247 p. (MIRA 10:1)
(Soil stabilization)

FEDOROV, V.T.; MOGILEVICH, V.M.; BEZHUK, V.M.

The 10th international road construction congress. Avt.dor. 19
no.1:29-30 Ja '56. (MIRA 9:5)
(Istanbul--Roads--Congresses)

Bezruk V.M.
USSR/Chemical Technology - Chemical Products and Their
Application. Ceramics. Glass. Binders. Concrete.

H-7

Abs Jour : Referat Zhur - Khimiya, No 1, 1958, 2107

Author : Bezruk V.M.

Inst : -

Title : Classification of Saline Soils of Central Asia in Connection with Their Use in Road Building.

Orig Pub : Tr. Soveshchaniya po inzh.-geol. svoystvam gorn. porod i metodam ikh izucheniya. M., 1957, 77-86

Abstract : No abstract.

Card 1/1

BEZRUK, V.M., prof.; GULYAYEV, V.A., inzh.

Make broader use of soil stabilization in road building. Avt.
dor. 20 no.8:2-3 Ag '57. (MIRA 12:4)
(Soil stabilization) (Road construction)

GOLOVANENKO, Sergey Lavrent'yevich, dotsent, kand.tekhn.nauk; BIRULYA, A.K., prof., doktor tekhn.nauk, zasluzhennyy deyatel' nanki, red.; BEZRUK, Y.M., prof., doktor geol.-miner.nauk, retsenzent; VOLKOV, M.I., prof., retsenzent; YEGOZOV, V.P., red.; MAL'KOVA, N.V., tekhn.red.

[Stabilized soil roads] Dorozhnye pokrytiia iz obrabotannykh gruntov. Pod red. A.K.Birulia. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transporta i shosseinykh dorog RSPSR, 1959. 126 p. (MIRA 13:4)

(Road construction)

BEZRUK, V.

Conference of representatives from institutions of higher
learning on methods of testing soils used in road construction.
Avt.dor. 22 no.6:3 of cover. Ja '59. (MIRA 12:9)
(Soil research) (Road research)

BEZRUK, Vasiliy Makarovich, prof., doktor geol.-mineral.nauk; YASTREBOVA, Lidiya Nikolayevna, kand.geol.-mineral.nauk; LYUBIMOVA, Tamara Yul'yevna, kand.khim.nauk; VOLKOV, Anatoliy Valerianovich, kand. tekhn.nauk; ZUBKOVA, M.S., red.; NIKOLAYEVA, L.N., tekhn.red.

[Modern methods of building road bases and surfaces of soils stabilized by cement, lime, bitumen, and tar] Sovremennyye metody stroitel'stva dorozhnykh osnovanii i pokrytii iz gruntov, ukreplennykh tsementom, izvest'iu, bitumom, degtem. Pod red. V.M.Bezruka. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transp. i shosseinykh dorog ~~SSSR~~, 1960. 200 p. (MIRA 14:4)

1. Gosudarstvennyy vsesoyuznyy dorozhnyy nauchno-issledovatel'skiy institut (for Bezruk, Yastrebova, Lyubimova, Volkov).
(Road materials) (Soil stabilization)

BEZRUK, Vasil'y Makarovich, doktor geol.-miner.nauk; ZASHCHEPIN, Aleksey Nikitich, kand.tekhn.nauk; IVANOV, Fedor Mikhaylovich, kand.tekhn.nauk; MIKHAYLOV, Valentin Vasil'yevich, kand.tekhn.nauk; NEKRASOV, Vladimir Konstantinovich, kand.tekhn.nauk; KURDENKOV, Boris Ivanovich, inzh.; ZASHCHUK, Igor' Vsevolodovich, kand.tekhn.nauk; GORELYSHEV, N.V., kand.tekhn.nauk, red.; YEGOZOV, V.P., red.; GALAKTIONOVA, Ye.N., tekhn.red.; DONSKAYA, G.D., tekhn.red.

[Handbook on laboratory testing of road materials and soils]
Spravochnoe rukovodstvo po laboratornym ispytaniyam dorozhno-stroitel'nykh materialov i gruntov. Pod obshchei red. N.V.Gorelysheva. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transporta i shosseinykh dorog RSFSR, 1960. 381 p. (MIRA 13:11)
(Road materials--Testing)

MESHCHERYAKOVA, Irina Pavlovna; HEZRUK, V.M., doktor geologo-miner. nauk,
prof., red.; GANYUSHIN, A.I., red.; NIKOLAYEVA, L.N., tekhn. red.

[Roads with a base course of compacted Soil] Dorogi s osnovaniem iz
ukreplennogo grunta. Pod red. Bezruka. Moskva, Nauchno-tekhn. izd-vo
M-va avtomobil'nogo transp. i shosseinykh dorog RSFSR, 1961. 23 p.
(MIRA 14:7)

(Soil stabilization) (Road construction)

BEZRUK, V., doktor geol.-mineral.nauk; GUREVICH, L., kand.tekhn.nauk

Concrete made of soil cement and its use in road construction:
Zhil.-kom. khoz. 11 no.276-8 P. '61. (MIRA 14:5)
(Roads, Concrete) (Soil cement)

BEZRUK, V.M., prof., doktor geol.-mineral.nauk; MARGOT'YEV, A.N., inzh.

Stabilization of the formation soils. Zhel.dor.transp. 44
no.6:57-59 Je '62. (MIRA 15:8)
(Railroads--Track) (Soil stabilization)

KOTLOV, F.V., kand. geol.-min. nauk, otv. red.; BEZDUK, V.M., doktor geol.-miner. nauk, red.; BELYY, L.D., doktor geol.-miner. nauk, red.; BYKOVA, V.S., kand. geol.-miner. nauk, red.; GOR'KOVA, I.M., doktor geol.-miner. nauk, red.; GUREYEV, A.M., red.; YEMEL'YANOVA, Ye.P., kand. geol.-miner. nauk, red.; KOLOMENSKIY, N.V., doktor geol.-miner. nauk, prof., red.; MAKEYEV, Z.A., doktor geol.-miner. nauk, red.; POL'SHIN, D.Ye., kand. tekhn. nauk, red.; POPOV, I.V., doktor geol.-miner.-nauk, prof., red.; PRIKLONSKIY, V.A., prof., red. [deceased]; RUBINSHTEYN, A.L., doktor geol.-miner. nauk, prof., red.; SERGEYEV, Ye.M., doktor geol.-miner. nauk, prof., red.; FADEYEV, P.I., kand. geol.-miner. nauk, red.; ZOLOTOV, P.F., red. izd-va; ASTAF'YEVA, G.A., tekhn. red.

[Materials on the engineering and geological properties of rocks and methods for their study] **Inzhenerno-geologicheskie svoistva gornyykh porod i metody ikh izucheniia**; materialy. Moskva, Izd-vo Akad. nauk SSSR, 1962. 362 p. (MIRA 15:5)

1. Soveshchaniye po inzhenerno-geologicheskim svoistvam gornyykh porod i metodam ikh izucheniya, Moscow, 1957. 2. Chlen-korrespondent Akademii nauk SSSR (for Priklonskiy). 3. Moskovskiy gosudarstvennyy universitet (for Sergeyev). 4. Laboratoriya gidrogeologicheskikh problem Akademii nauk SSSR (for Kotlov). 5. Kafedra "Osnovaniya i fundamente" Moskovskogo instituta inzhenerov vodnogo khozyaystva (Rubinshteyn).

(Rocks)

(Engineering geology)

PETRENKO, G.M., kand. tekhn. nauk, dots., otv. red.; BEZRUK, V.M.,
doktor geol.-miner. nauk, prof., red.; DRANNIKOV, A.M.,
doktor geol.-min. nauk, prof., red.; LITVINOV, I.M., red.;
REL'TOV, B.F., kand. tekhn. nauk, red.; RZHANITSYN, B.A.,
doktor tekhn. nauk, prof., red.; DMITRIYEVA, I.K., red.

[Materials of the Conference on the Stabilization and
Packing of Soils] Materialy Soveshchaniia po zakrepleniiu
i uplotneniiu gruntov. Kiev, Akad. stroit. i arkhitekt. USSR,
1962. 462 p. (MIRA 16:6)

1. Soveshchaniye po zakrepleniiu i uplotneniiu gruntov,
Kiyev, 1962. 2. Gosudarstvennyy vsesoyuznyy dorozhnyy nauchno-
issledovatel'skiy institut (for Bezruk). 3. Kiyevskiy inzh-
nerno-stroitel'nyy institut (for Drannikov, Petrenko). 4. Vse-
soyuznyy nauchno-issledovatel'skiy institut gidrotekhniki (for
Rel'tov). 5. Nauchno-issledovatel'skiy institut osnovaniy Aka-
demii stroitel'stva i arkhitektury SSSR (for Rzhnitsyn).
(Soil stabilization)

MOTYLEV, Yu.L., kand. tekhn.nauk; BUTLITSKIY, Yu.V., mlad. nauchn. sotr.; STUPAKOVA, L.F., ml. nauchn. sotr.; FEDOSEYEVA, T.I., ml. nauchn. sotr.; SHUL'GINA, V.P., kand. tekhn.nauk; IVANOV, N.N., prof., doktor tekhn. nauk, retsenzent; BEZRUK, V.M., doktor geol.-miner. nauk, retsenzent; KOVRIZHNYKH, L.P., red.; BODANOVA, A.P., tekhn. red.

[Investigating the stability of a saline-soil roadbed] Issledovaniia ustoiichivosti zemlianogo polotna iz zasolennykh gruntov. Moskva, Avtotransizdat, 1963. 115 p.

(MIRA 16:8)

(Road construction) (Soil mechanics)

BEZRUK, Vasilii Makarovich, prof.; LIPSKAYA, V.F., red.;
GALAKTIONOVA, Ye.N., tekhn. red.

[How to build a road with soil cement] Kak stroit' do-
rogu iz tsementogrunta. Moskva, Avtotransizdat, 1963. 35 p.
(MIRA 17:2)

BOGDANOV, German Fedorovich; BEZRUK, V.M., prof., retsenzent;
LYSENKO, M.P., doktor geol.-miner. nauk, civ. red.,
SKORYNINA, N.P., red.

[Manual for laboratory studies on artificial soil stabilization] Rukovodstvo po laboratornym issledovaniyam pri iskusstvennom ukreplenii gruntov. Leningrad, Izd-vo Leningr. univ., 1965. 107 p. (MiHA 18:4)

KOZLOVSKIY, B.K., inzh., red.; BEZRUK, V.M., doktor geol.-
miner. nauk, prof., red.; YASTREBOVA, L.N., kand. geol...
miner. nauk, red.

[Instructions on using soils strengthened by binding materials in road and airport construction] Ukazaniia po primeneniui v dorozhnom i aerodromnom stroitel'stve gruntov ukreplennykh viazhushchimi materialami (SN 25-64). Moskva, Stroiizdat, 1965. 142 p. (MIRA 18:7)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva.
2. Gosstroy SSSR (for Kozlovskiy).
3. Gosudarstvennyy vsesoyuznyy dorozhnyy nauchno-issledovatel'skiy institut (for Bezruk, Yastrebova).

М.С. Билибин, доктор геол.-минер. наук, проф. инж.
инж., лауреат Государственной премии II степени (1905-);
М.С. Билибин, Ю.Л., ред.

[Soil stabilization] Ukreplenie gruntov. Moskva, Transport,
1966. 339 p. (P.L.A. 18:10)

1. Gosudarstvennyy Vsesoyuznyy nauchno-issledova-
tel'skiy institut (for Bezruk).

BEZRUK, V.M., prof.

Soils should be used for pavements. Avt.dor. 28 no.3:3-5 Mr '65.
(MIRA 18:5)

L-6700-65 ENT(d)/EEC(R)-2/EEC-4 PG-4/PK-4/PL-4/PO-4/PQ-4 AFWL/SSD/RAFM(t)

ACCESSION NR: AP4044678

S/0120/64/000/004/0111/0116

73

AUTHOR: Yakovlev, K. A.; Basin, Yu. G.; Pankrushina, D. K.;
Kovalenko, N. G.; Bezruk, V. P.

70

TITLE: Universal through-power meter (wattmeter)

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1964, 111-116

TOPIC TAGS: wattmeter, power meter, RF power meter, electronic power meter

ABSTRACT: Intended for high-speed power measurements, such as those employed in r-f field-plasma experimentation, the instrument is based on a multigrid converter tube which yields the $IU \cos \varphi$ function. To reduce the error due to nonlinearity of the working parts of the tube anode-grid characteristics, the phase of one of the r-f grid voltages is periodically (with a constant frequency 50 or 200 kc) shifted by 180° . A functional block diagram and simplified

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L 6700-65
ACCESSION NR: AP4044678

3

connection diagram are presented. The instrument indicates peak values and permits visual observation of active-power, voltage, and current pulses (3 oscilloscopes provided) in a load whose parameters fluctuate in time. The instrument has been developed in two versions: for 0.2-2 Mc range and for 1-10 Mc range. Rated peak currents are 50-1,000 amp; peak voltages, 2-20 kv. Frequency spectrum of the measurand power: 0-15 kc in the first version and 0-60 kc in the second. After excluding a "frequency error" by using a correction table, the over-all error remains within 10%. "The authors wish to thank V. N. Goncharova for her extensive work in building an experimental lot of the instruments, and V. G. Petriashvili for his/her help in preparing the technical documentation." Orig. art. has: 4 figures and 4 formulas.

ASSOCIATION: Fiziko-tehnicheskii institut GKAE SSSR (Physico-Technical Institute, GKAE SSSR)

SUBMITTED: 28Aug63

ENCL: 00

SUB CODE: EC

NO REF SOV: 004

OTHER: 000

Card 2/2

1. SHALBAKIN, L. I. ; VAKARENKO, S. S. ; PAMIN, A. I. ; BEZRUK, V. S.

2. USSR (600)

4. Afforestation

7. Leaders in steppe forestry speak. Les i step' 4 no 10: 1952

9. Monthly List of Russian Accessions, Library of Congress, January, 1953. Unclassified.

212400
152240
111240
AUTHORS: Markovskiy, L. Ya. and Bezruk, Ye. T.

S/080/62/035/003/004/024
D258/D302

TITLE: The chemical stability of some transitional metal borides (II)

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 3, 1962, 491-498

TEXT: In continuation of earlier work the authors studied the chemical stability towards acid hydrolysis of the different borides of Mn, Cr, Fe, Ni and Co to establish a relationship between boride stability towards hydrolysis and boron contents of the compound. To this end, Mn_2B , MnB , Mn_3B_4 , MnB_2 , FeB , Fe_2B , CoB , Co_2B , Co_3B , NiB , Ni_4B_3 , Ni_2B , Ni_3B , CrB , Cr_5B_3 and Cr_2B were synthesized from the elements, treated with a 1:2 HCl solution, and their reaction products analyzed for diborane, tetraborane and hydrogen. It was shown that boranes and hydrogen were formed in each case. The gradual increase of B contents in every group is connected with a sharp decrease in the rate of decomposition, as well as in borane formation.

Card 1/2

The chemical stability ...

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D258/D302

The stability of isostructural borides increased from Cr to Ni. The increased stability of boron-rich compounds was interpreted in terms of correspondingly increasing strength of B-B bonds. There are 2 figures, 6 tables and 20 references: 10 Soviet-bloc and 10 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: Binder and B. Post, Acta crystallograph., 13, 356, (1960); S. Rundqvist, Acta chem. Scand., 13, 1196, (1959); H. Blumenthal, Powder Metal. Bull., 6, 48, (1951); A. Newkirk and D. Hurd, J. Am. Chem. Soc., 77, 241, (1955).

SUBMITTED: April 5, 1961

Card 2/2

L 1611-66 EWP(e)/EWT(m)/EWP(i)/ETC/ENG(m)/EWP(t)/EWP(k)/EWP(z)/EWP(b) IJP(c)
JD/JG/AT/WH

ACCESSION NR: AP5021662

UR/0080/65/038/008/1677/1682
669.018+546.271

AUTHOR: Markovskiy, L. Ya.; Bezruk, Ye. T.

TITLE: Fusibility diagram and some chemical properties of borides in the man-
ganese boron system

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 8, 1965, 1677-1682

TOPIC TAGS: manganese, boron, boride, oxygen, nitrogen, ammonia, carbon,
phase diagram

ABSTRACT: The work is intended as a study of the chemical properties of indivi-
dual boride phases, particularly their interaction with oxygen, nitrogen, ammonia,
and carbon. Manganese borides were prepared by sintering briquetted mixtures
of powders of electrolytic manganese (99.5% manganese) and refined boron
(98.5%) in corundum furnaces in an atmosphere of purified argon. Temperature
limits for the formation of different boron phases, sintering conditions and com-
position of the samples are given in tabular form. After heating, the samples
were cooled along with the furnace. The following boride phases were observed:
 Mn_2F , MnB , Mn_3B_4 , and MnB_2 . In long term tests with a large excess of metal-

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